Does Your Hospital Need a Recovery Room?

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• In a survey made to estimate the need for a special room in which patients could recover from anesthesia after operation, it was found that of 475 cases in which this service might have been used, it would have been desirable in 296; that recovery room care would probably have relieved ward nurses of the duty of special care during their busiest hours; that recovery room care was indicated in a high percentage of cases in which certain anesthetics were employed, and that the need for recovery room care appeared to increase in proportion to the amount of pre-sedation given.

THE IDEA of a special room or ward in which patients can recover from operative anesthesia is not new but has recently been revived. The advantages claimed for a recovery room are that in the immediate postoperative period all patients who need it can have the care of specially trained nurses without delay; that equipment and supplies needed in such care are readily available in one area and need not be duplicated elsewhere; that more patients can be operated upon and released the same day, after recovery; that emergency operations can be done at any hour without disturbance to patients or routine in other wards; that ward nurses would be relieved of the care of patients at the time when nurses are busiest and the patients need most attention, and that nurses caring for recovering patients need not be hampered by visitors to these patients or to others on the ward.

All who have had experience with a recovery room —surgeons, anesthetists and nurses—are enthusiastic about the results. There are problems, however in setting up a recovery room near the operating rooms in space already used for other purposes, and even in new construction the general idea of a recovery room must be applied in terms of probable need. To determine both the desirability of a recovery room and the particular needs which it would fill, a survey was made of surgical cases in a 220-bed hospital with seven to eight operating rooms which is in an urban area near Los Angeles. The object was to learn what patients would have been cared for postoperatively in a recovery room had one been available.

During the period of the survey there were 32 working days including six Saturday half-days. A total of 574 patients were operated upon. Of the total, 99 had operations for which recovery room care is not considered ordinarily necessary — cesarean section, adenotonsillectomy and outpatient treatment. Of those patients who might have been sent to a recovery room, 180 (38 per cent) were males and 295 (62 per cent) females.

To make possible a judgment as to which patients would have been sent to a recovery room, a chart was placed on each floor for recording of the recovery time and the condition of each of the 475 patients. The author then correlated the information on these charts with the nurses' other records. The conclusion was that 296 patients would have been sent to a recovery room; of these, 111 (37.5 per cent) were males and 185 (62.5 per cent) females, a proportion very close to that for all cases in the survey and one to be considered in the planning of this facility. The distribution on wards was as follows:

Type of Ward	Cases in Survey	"Recovery Room Cases" No.	"Recovery Room Cases" Per Cent
Medical	53	32	60.4
Pediatric	22	16	72.7
Neurosurgical	46	31	67.3
Surgical	354	217	61.0
	475	296	62.3

It might be noted here that had a recovery room been available the equipment, supplies and nursing services needed for the patients during recovery time would have been combined rather than distributed or duplicated through eight wards. Of these factors, of course, the most important is the service of specially trained nurses. Special nurses cared for 48 of the 296 "recovery room patients"; had these patients in fact been concentrated in a recovery room all would have been under the care of special nurses during the critical period.

One factor affecting both efficiency of nursing service and the care available for patients after operation is the time at which the patients arrive on the ward. This time was noted for all patients in the survey and the information was grouped for three periods in the day. The first period is before 11:30 a.m., the hour at which all nursing and aide person-

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nel are occupied in serving lunch. It is before this hour that floor nurses are busiest in discharging patients, making rounds with physicians, and helping with dressing trays and personal care of patients. The second period, from 11:30 to 1 p.m., is that in which nurses are either at lunch or helping with feeding problems. The third period is after 1 p.m.

Period	Patients Returned to Ward During Period	Patients Who Would Have Gone to Recovery Room	
		No.	Per Cent
Before 11:30 a.m.	265	159	60.0
11:30 to 1 p.m.	120	82	68.3
After 1 p.m.	90	55	62.3
	475	296	62.4

It is observed from these figures that the greatest number of patients arrived during the period in which routine duties are heaviest and that of those arriving during the lunch period the greater proportion would have gone to a recovery room had there been one. It is to be noted that the recovery time for some patients arriving before 11:30 a.m. extended well beyond that time. Average recovery time for "recovery room patients" was 1 hour and 45 minutes.

Several factors were studied which might aid in establishing indications for sending patients to a recovery room. One of these was the kind of anesthetic used. The following list shows the percentage of "recovery room patients" among those receiving one of the seven anesthetics most commonly used in the cases in the survey (excluding local anesthetics):

Anesthetic	Number of Cases in Which Used	"Recovery Room Patients"	
		Number	Per Cent
Pentothal-spinal	89	53	60
Pentothal-curare-gas-oral tracheal	76	73	96
Pentothal-gas	65	48	74
Pentothal-curare-gas	54	48	89
Spinal	46	2	4
Pentothal	45	27	60
Pentothal-spinal-gas	20	14	70

That pre-sedation affects recovery time is indicated by the facts that of 22 patients who were not given pre-sedation, only eight or 36 per cent would have been sent to a recovery room; of 59 patients given light pre-sedation, 32 or 54 per cent; moderate (258 cases), 162 patients or 63 per cent; and heavy (136 cases), 94 patients or 70 per cent.

NOTE: Since the presentation of this paper a new and extensive review and bibliography has been published. The author will be happy to help anyone interested in a review of a hospital in determining its need for a recovery ward.

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Discussion by* WILLIAM H. MORAN, M.D., *La Canada

Dr. McIntosh has, I believe, clearly demonstrated in his analytical study the importance of a postoperative area, whether it be a room, a ward, or a concentration of patients on a floor or in a hospital wing. The value of such a service to the patient, the hospital, the surgeon, and the anesthesiologist is evident from these statistics.

I would like to recount, briefly, my own experience. Nine years ago in an Army general hospital of 3,000 beds, the anesthesia service was confronted with an alarming increase in postoperative complications. At one time there were 11 cases of atelectasis in the surgical wards. These cases were occurring with all types of anesthesia, and in all types of surgery.

As in private hospitals today, we had a shortage of nurses. A recovery ward was placed immediately adjacent to the surgery. Both the nursing and enlisted personnel were given intensive training in the postoperative care of patients by members of the surgical service and the anesthesia service. All available equipment for treatment and prophylaxis was pooled in the recovery ward.

The incidence of surgical and anesthetic complications promptly dropped and remained within a normal rate during the next year. All surgical patients, except those receiving minor surgery with local anesthesia, were placed in this ward. All were removed to their respective surgical wards as soon as possible, after consultation between the surgical service and the anesthesia service.